

## Product datasheet for RC208266

### DFFB (NM\_004402) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DFFB (NM_004402) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DFFB
Synonyms:	CAD; CPAN; DFF-40; DFF2; DFF40
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208266 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTCCAGAAGCCCAAGAGCGTGAAGCTGCGGGCCCTGCGCAGCCCGAGGAAGTTCGGCGTGGCTGGCC  
GGAGCTGCCAGGAGGTGCTGCGCAAGGGCTGTCTCCGCTTCCAGCTCCCTGAGCGCGTTCCCGGCTGTG  
CCTGTACGAGGATGGCACGGAGCTGACGGAAGATTACTCCCCAGTGTTCCGACAACGCCGAGCTGGT  
CTGCTCACCTTGGGCCAGGCCTGGCAGGGCTATGTGAGCGACATCAGGCGCTTCTCAGTGCATTTACG  
AGCCACAGGTGGGGCTCATCCAGGCCGCCAGCAGCTGCTGTGTGATGAGCAGGCCCCACAGAGGCAGAG  
GCTGCTGGCTGACCTCCTGCACAACGTCAGCCAGAACATCGCGGCCGAGACCCGGGCTGAGACCCGCCG  
TGGTTTGAAGGCTTGGAGTCCCGATTTCCAGAGCAAGTCTGGCTATCTGAGATACAGCTGTGAGAGCCGGA  
TCCGGAGTTACCTGAGGGAGGTGAGCTCCTACCCCTCCACAGTGGGTGCCGAGGCTCAGGAGGAATTCCT  
GCGGGTCTCGGCTCCATGTGCCAGAGGCTCCGGTCCATGCAGTACAATGGCAGCTACTTCGACAGAGGA  
GCCAAGGGCGGCAGCCGCTCTGCACACCGGAAGGCTGGTTCTCCTGCCAGGGTCCCTTTGACATGGACA  
GCTGCTTATCAAGACTCCATCAACCCCTACAGTAACAGGGAGAGCAGGATCCTCTTCAGCACCTGGAA  
CCTGGATCACATAATAGAAAAGAAACGCACCATCATTCTACTGCTGGTGAAGCAATTAAGGAACAAGAT  
GGAAGAGAGTGGACTGGGAGTATTTTATGGCCTGCTTTTACCTCAGAGAACCTAAACTAGTGACACA  
TTGTCTGCCATAAGAAAACCCACCAAGCTCACTGTGACCCGAGCAGAATCTACAACCCAGACAAG  
GTTGAAGCGGAAGCAGCCTGTGCCGAAACGCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC208266 protein sequence  
Red=Cloning site Green=Tags(s)

MLQKPKSVKLRALRSPRKFVAGRSCQEVLRKGCLRFQLPERGSRLCLYEDGTELTEDYFSPVDPNAELV  
 LLTLGQAWQGYVSDIRRFSAFHEPQVGLIQAAQQLLCDEQAPQRQLLADLLHNVSQNIAAETRAEDPP  
 WFEGLESRFQSKSGYLRYSCESRIRSYLREVSSYPSTVGAEAEQEFRLVLSMCQRLRSMQYNGSYFDRG  
 AKGGSRLCTPEGWFSCQGPFDMSCLSRHSINPYSNRESRILFSTWNLDHIIIEKKRTIIPTLVEAIKEQD  
 GREVDWEYFYGLLFTSENKLVHIVCHKKTTHKLNCDPSRIYKPQTRLKRKQPVRKRQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6791\\_h05.zip](https://cdn.origene.com/chromatograms/mk6791_h05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004402

**ORF Size:** 1014 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_004402.1](#)

**RefSeq Size:** 3048 bp

**RefSeq ORF:** 1017 bp

**Locus ID:** 1677

**UniProt ID:** [O76075](#)

**Cytogenetics:** 1p36.32

**Domains:** CAD

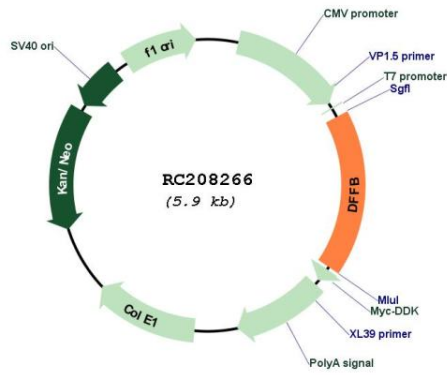
**Protein Families:** Druggable Genome

**Protein Pathways:** Apoptosis

**MW:** 39.1 kDa

**Gene Summary:** Apoptosis is a cell death process that removes toxic and/or useless cells during mammalian development. The apoptotic process is accompanied by shrinkage and fragmentation of the cells and nuclei and degradation of the chromosomal DNA into nucleosomal units. DNA fragmentation factor (DFF) is a heterodimeric protein of 40-kD (DFFB) and 45-kD (DFFA) subunits. DFFA is the substrate for caspase-3 and triggers DNA fragmentation during apoptosis. DFF becomes activated when DFFA is cleaved by caspase-3. The cleaved fragments of DFFA dissociate from DFFB, the active component of DFF. DFFB has been found to trigger both DNA fragmentation and chromatin condensation during apoptosis. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene but the biological validity of some of these variants has not been determined. [provided by RefSeq, Sep 2013]

Product images:



Circular map for RC208266